

ABSTRACT OF THE DISCLOSURE

Systems and methods for treating neuro-psychiatric disorders, such as depression or schizophrenia, and/or other illnesses are disclosed. A patient is diagnosed with a particular neuro-psychiatric disorder or other illness. An electric nerve stimulation (ENS) technique, such as vagus nerve stimulation (VNS), is administered to the patient in conjunction with a magnetic nerve stimulation (MNS) technique. The magnetic nerve stimulation (MNS) technique includes applying a magnetic field to a pre-selected synaptic region of a brain of the patient based on the diagnosis. A physiological response of the brain, such as electroencephalogram (EEG) activity, is monitored. One or more parameters of the magnetic field may be selectively adapted in response to the monitored physiological response. The administration of the ENS technique and the MNS technique may be performed simultaneously, in serial order, or in alternating order depending on the diagnosis.